What Is Claimed Is:

1. A method for reducing hemolysis in cells comprising

washing cells in a solute solution having the capabilities of reducing cell hemolysis by at least about 0.50 % for each 100 mOsm increase in osmolarity of the solute solution.

2. The method of Claim 1 wherein said solute solution reduces cell hemolysis from about 0.50 % to about 8.0 % for each 100 mOsm increase in osmolarity of the solute solution.

3. The method of Claim 1 wherein said solute solution reduces cell hemolysis from about 1.0 % to about 4.0 % for each 100 mOsm increase in osmolarity of the solute solution.

4. The method of Claim 1 wherein said solute solution reduces cell hemolysis from about 1.0 % to about 2.0 % for each 100 mOsm increase in osmolarity of the solute solution.

5. The method of Claim 1 wherein said solute solution comprises an osmolarity ranging from about 100 mOsm to about 1500 mOsm.

6. The method of Claim 1 wherein said solute solution comprises an osmolarity ranging from about 200 mOsm to about 1000 mOsm.

7. The method of Claim 1 wherein said solute solution comprises an osmolarity ranging from about 300 mOsm to about 600 mOsm.

8. The method of Claim 4 wherein said solute solution comprises an osmolarity ranging from about 300 mOsm to about 600 mOsm.

9. The method of Claim 1 wherein said solute solution comprising a salt solution having a phosphate buffered saline (PBS) solution including NaCl, Na_2HPO_4, and KH_2PO_4.

10. The method of Claim 1 wherein said solute solution comprises a PBS buffer having 154 mM NaCl, 5.6 mM Na_2HPO_4, 1.06 mM KH_2PO_4, and a pH 7.2.

11. The method of Claim 1 additionally comprising removing damaged cells from the washed cells.

12. The method of Claim 11 wherein removing damaged cells comprises centrifuging the washed cells.

13. The method of Claim 11 additionally comprising suspending the cells in the solute solution.

14. The method of Claim 1 additionally comprising loading a solute into the cells prior to washing the cells.

15. The method of Claim 14 wherein said loading of the cells comprises disposing the cells in a solution having a solute concentration of sufficient magnitude to produce hyperosmotic pressure on the cells for transferring a solute from the solution into the cells.

16. The method of Claim 15 wherein said solute concentration includes an extracellular cellular solute concentration for

elevating extracelluar osmolarity within the solution to a value which is greater than a value of the intracellular osmolarity of the cells.

17. The method of Claim 15 wherein said transferring a solute is by fluid phase endocytosis.

18. The method of Claim 15 wherein said solute comprises trehalose and said cells comprise erythrocytic cells.

19. The method of Claim 18 wherein said transferring of trehalose from the solution into the erythrocytic cells is without degradation of the trehalose.

20. The method of Claim 18 wherein a gradient of trehalose concentration (M) within the erythrocytic cells to extracellular trehalose concentration (M) within the solution ranges from about 0.130 to about 0.200.

21. The method of Claim 18 wherein a gradient of trehalose concentration (M) within the erythrocytic cell to extracellular trehalose concentration (M) within the solution ranges from about 0.04 to about 0.12.

22. The method of Claim 18 wherein said solute solution has a trehalose concentration ranging from about 320 mM to about 4000 mM.

23. A cell produced in accordance with the method of Claim 1.

24. The method of Claim 18 wherein loading trehalose into erythrocytic cells comprises disposing the erythrocytic cells in

a trehalose solution having a trehalose concentration of at least about 25 % greater than the intracellular osmolarity of the erythrocytic cells for loading the trehalose into the erythrocytic cells.

25. The method of Claim 14 additionally comprising

preventing a decrease in a loading efficiency gradient in the loading of the solute into the cells.

26. The method of Claim 25 wherein said solute comprises an oligosaccharide and said preventing a decrease in a loading efficiency gradient in the loading of the oligosaccharide into the cells comprises maintaining a concentration of the oligosaccharide in the oligosaccharide solution below a concentration ranging from about 35 mM to about 65 mM.

27. The method of Claim 25 wherein said solute comprises an oligosaccharide and said preventing a decrease in a loading efficiency gradient in the loading of the oligosaccharide into the cells comprises maintaining a positive gradient of loading efficiency to concentration of the oligosaccharide in the oligosaccharide solution.

28. The method of Claim 1 additionally comprising retaining the solute in the cells during the washing.

29. The method of Claim 28 wherein said washing is with a washing buffer, and retention of the solute in the cells increases from about 25% to about 175% when a buffer concentration increases from about 50% to about 400%.

30. The method of Claim 28 additionally comprising washing the cells with a washing buffer wherein a ratio of an extracellular buffer concentration (mOsm) to an intracellular solute concentration (mM) ranges from about 14.0 to about 4.0.

31. A method for removing fragile cells from cells comprising:

washing cells in a solute solution having the capabilities of reducing cell hemolysis to produce washed cells including fragile cells; and

removing the fragile cells from the washed cells.

32. The method of Claim 31 wherein said solute solution has the capabilities of reducing hemolysis by at least about 0.50 % for each 100 mOsm increase in osmolarity of the solute solution.